

# Rural Education Development: Project Borneo

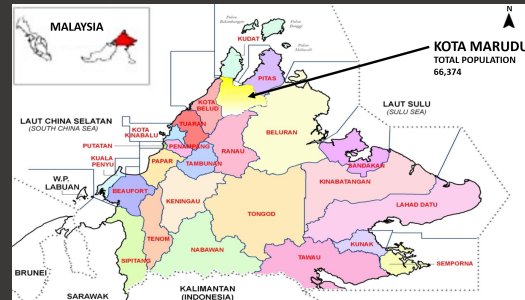
Summer Expedition

(26<sup>th</sup> June 2017 – 4<sup>th</sup> August 2017)



## Background

This year, a group of eighteen volunteers from Imperial College London travelled to Sabah, Malaysian Borneo for five weeks to construct a kindergarten for a native Dusun community in Kampung Palipikan. Kampung Palipikan is in the northern region of the Sabah state and houses about 500 people. The village is geographically less strategic for trade and infrastructural development as it is only accessible by vehicles through gravel roads that cut through a commercial palm oil plantation. Most of the villagers in Kampung Palipikan are rubber tappers and farmers.



**Figure 1:** The administrative districts in Sabah (Department of Statistics Malaysia, 2010)

## Design and Construction



**Figure 2:** The completed building



**Figure 3:** Our volunteers working hard

We constructed a single-storey education centre of dimensions 6 m by 9 m. It is a steel-framed structure clad with cement fibre board on the exterior and gypsum board on the interior. Resting on a reinforced concrete pad, the education centre has a large central hall (approximately 6 m by 6 m) as classroom. Furthermore, the education centre houses a pantry for teacher to prepare snacks and a storage room. The latter facilities are roughly 3 m by 3 m in dimension. Steel trusses covered by metal sheets with wool insulation provide sufficient shade for the structure under torrid noon sun. In the first two weeks of the expedition, monsoon season in Borneo posed significant challenges to our project as torrential rain disrupted our work.

Recognising the evening rain pattern, we woke up before dawn to have an early start to our daily tasks.

To achieve effective project implementation, we put great emphasis on functional, safe and sustainable design solutions. Construction material and equipment were sourced locally to ensure that the project contributes to the local economy. As the supply chain shortens, delivery times reduce, thus, saving logistical cost and avoiding delay in material supply.

To boost the project's environmental sustainability credentials, solar panels and rainwater harvesting tank were installed. The green technologies give the locals exposure to harnessing solar and water resources that are in abundance in tropical Borneo.



**Figure 4:** Solar panels attached to the roof



**Figure 5:** Hippolyte guiding the children during the English lesson

## Education

Apart from participating in construction, student volunteers also assumed teaching roles in evening English classes. These classes took place bi-weekly during the 5-week expedition. In our effort to better structure the English classes, we had a team of 11 members who dedicated themselves in designing an English curriculum suitable for the Bornean children in the Palipikan village. The curriculum revolved around expanding English vocabulary through interactive games and nursery rhymes. English booklets delicately designed by our members were presented to the Bornean children to accompany them in learning. Furthermore, flash cards and teaching kits, adjunct to the English booklets, were also introduced to enhance the children's learning process.

## Student Experience



**Figure 6:** Volunteers with the Palipikan children during the last English lesson.

During the expedition, volunteers gained first-hand project planning and construction experience, thus allowing them to consolidate engineering knowledge acquired at Imperial College London and hone their transferable skills and problem-solving techniques. As the volunteers stayed in Kampung Palipikan throughout the expedition, exploring local culture and interacting with the local communities also enriched their volunteering experience.